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Agent	PARK, Sa Ryong
Inventor	AHN, MOON-HWI
Right Holder	AHN, MOON-HWI
Examiner	Gi-Wan Lee
Title of Device	CONNECTION STRUCTURE OF PANEL

Abstract

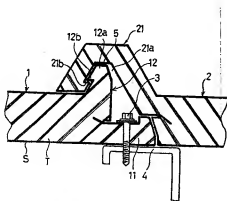
[Purpose]

While preventing the water leakage through the connection part of each panel ash used as the roofing material and damage, it provides the connection structure of the panel for construction possible construction be facilitated, damage have the present invention.

[Configuration]

To achieve the above object, the present invention forms the fastening end (11) in order to fix on the one-sided of the panel ash (1) with the fastening bolt (3). The inside connector (12), forming the mating protrusion (12a) on the inner side and the outside connection part (21) which forms the bonding groove (21a) which is incured with the mating protrusion (12a) while contacting to the other side of the panel ash (2) with the fastening end (11) described in the above are made have and each panel ash (1) (2) is continued. It is done by feature to set up.

Representative drawing



Description

[The name of design]

The connection structure of the panel for construction.

[The simple description of the drawing]

Figure 1 is a connection structure plan of the conventional panel for construction.

Figure 2 is a part cross-sectional view showing configuration of the present invention.

Figure 3 is a cross-sectional view showing another preferred embodiment of the present invention.

* The description of reference numerals of the main elements in drawings.

1,2: panel ash 11: fastening end.

12: inside connector 12a: mating protrusion.

12b: hitch bed jaw 21: outside connection part.

21a: bonding groove 21b: hitch bed jaw.

3: fastening bolt 4: structure.

5: sealing member.

[The detailed description of design]

The invention relates to the connection structure of the panel for construction, more concretely, to the connection structure of the panel for construction possible construction be facilitated while preventing the water leakage through the connection part of each panel ash used as the roofing material and damage.

Figure the first is the conventional connection structure plan. If it illustrates with reference to this, the panel ash (100) (200) is to the structure of surrounding with the exterior of the adiabatic material (T) with the sheet (S) including the steel sheet etc. The cohesive seat part (210) formed is combined in the connection part of the other side which it forms in order to surround the mating protrusion (110) formed on the connection part of the side which the side does to this panel ash (100) (200) of the shape of a mountain and the connection part is fixed to the fastening bolt (300) to the structure (500). And the cap (400) is inserted on the fastening bolt (300) described in the above.

But in the above case, there is a problem that the conventional structure of being the same construction is troublesome. Rainwater is infiltrated through gap between the cohesive seat surrounded with the connection part of the shape of a mountain with the wind and the water leakage is generated and the adiabatic efficiency is lowered to the damage of the adiabatic material. And the corrosion of the fastening bolt etc. are generated. Binds moreover, the panel ash in structure.

And there can be the problem of the etc. in which the shear force works on the fastening bolt and in which the fastening bolt is destroyed and which is unable to perform the issuing knuckle as the other problem is the expansion of the panel ash due to the solar energy.

And there is a problem that the connecting member fixing the panel ash is exposed by outside and for the sake of appearance the other problem is not good.

An object of the present invention is to provide the connection structure of the panel for construction in the above case, solve the conventional problem of being the same, and possible construction be facilitated while preventing the water leakage through the connection part of each panel ash used as the roofing material and damage.

In order to implement the above-described purpose, in order to fix on the one-sided of the panel ash with the fastening bolt the present invention forms the fastening end. The mating protrusion is formed on the inner side of the tensioning end. And it comprises with the inside connector, forming the hitch bed jaw on the inner side incline of the mating protrusion and the outside connection part which forms the bonding groove which is incurred with the mating protrusion while contacting with the fastening end () described in the above and each panel ash is united. It is done by feature to set up.

Hereinafter, using the drawing of the attached embodiment. And the present invention is illustrated in detail as follows:

Figure the second. And the panel ash (1) (2) the embodiment is shown of the present invention is equipped with the one-sided of the panel ash (1) is channel, and the inside connector (12) the mating protrusion (12a) of the mountain shape is formed into the inner side of the fastening end (11) in order to be vacant, it binds in the structure (4) of etc. to the fastening bolt (3) the fastening end (11) is formed the sheet (5) of metal is used the exterior of the adiabatic material (T).

The inner side incline of the mating protrusion (12a) described in the above, the hitch bed jaw (12b) is formed.

And the other side of the panel ash (1), while contacting with the fastening end (11) described in the above, the outside connection part (21) for being combined in the one-sided of the panel ash (1) with the inside connector (12) formed forms the bonding groove (21a) so that the mating protrusion (12a) be inserted. The other hitch bed jaw (21b) hanging on the hitch bed jaw (12b) which forms on the one-sided of the panel ash (1) within the bonding groove (21a) is formed and it is stationary each panel ash (1) (2) installed in the structure (4) in the fastening bolt (3).

In the above case, bonding groove (12b) have the sealing member (5) including the soft rubber etc. in order to enhance sealability between the mating protrusion (12a) and bonding groove (12b).

In this way, as to the comprised installation method of the present invention, if each panel ash (1) (2) is consecutively set up in the process of binding the bonding groove (21a) formed on the other side part of the panel ash (2) in the mating protrusion (12a) formed on the one-sided of the panel ash (1) after fixing the fastening end (11) formed on the one-sided of the panel ash (1) on the structure (4) with the fastening bolt (3), the state in which the joint (12) (21) is not separated with the hitch bed jaw (12b) (21b) and that is united is achieved.

Figure 3 is another preferred embodiment of the present invention. Each panel ash (1) (2) is united. The mating protrusion (12a) and bonding groove (21a) unite with the curved surface shape.

This present invention the joint (12) (21) is combined to multic-stage or the curved surface and the sealing member (5) is input in the interval. The state fixed in inside with the fastening bolt (3) is achieved. The life of the panel ash and prevention of leakage is lengthened in the strong wind, the heavy rain, or the heavy snow to inside since the inflow of rainwater including the wind etc. is completely blocked.

Moreover, it has the effect that while damage can be prevented for the work in which the joint (12) (21) surrounds the fastening bolt (3) and the shear force including the solar energy etc. is indirect, it is not expressed as anti-corrosion due to rainwater and outer tube is simple.

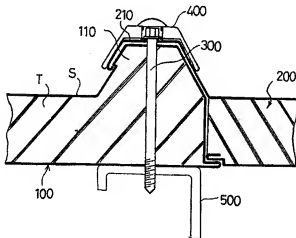
Scope of Claims

■ Claim 1:

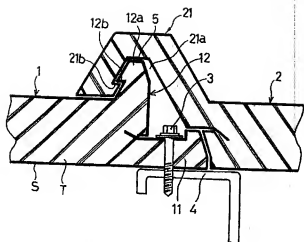
The connection structure of the panel for construction of the connection structure of the panel for construction it forms in, and the outside connection part (12) (21) on both side end point of the panel ash (1) and it continues each panel ash (1); and for being combined, wherein the outside connection part (21) is formed on the panel ash (1) of the state where the adiabatic material is filled on the ladder bone and the fastening end (11) of the inside connector (12) hangs on the single jaw groove which is formed in one side of the bottom part of the outside connection part (21) of the linking terminal projection (12b) (21b) which is formed in the inside connector (12) and inclined contact side to be symmetrical is connected by hanging, to be opened to downward.

Drawing

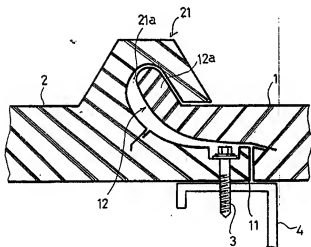
■ Fig. 1



■ Fig. 2



■ Fig. 3



Legal Status

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19960422	Request for Examination	Received
19980721	Notice of Submission of Opinion	Delivery Completed
19980911	Written Opinion	Received
19980911	Amendment including Specification etc.	Received
19980926	Written Decision on Registration	Delivery Completed

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등록출원번호 1034667

(19) 대한민국특허청(KP)
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(73) 출원인명자 안문취

(72) 고안자 안문취

(74) 대리인 박사훈

심사관 : 이기원

(54) 건축용 판넬의 연결구조

요약

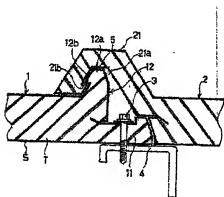
[목적]

본 고안은 지붕재로 사용되는 각 판넬부재의 연결부를 통한 누수나 관통을 방지하면서 서풍이 용이하도록 한 건축용 판넬의 연결구조를 제공함에 있다.

[구성]

상기한 목적을 달성하기 위하여 본 고안은 판넬(2)의 상부에 지붕판넬(13)을 고정시키도록 체결단부(11)를 형성하고, 내측에 결합돌출부(12a)를 형성한 하부판넬(2)의 타측에 상기 체결단부(11)와 결합면서 결합돌출부(12a)가 삽입되는 결합홈(21a)을 형성한 오목결합부(21)를 갖게하여 각 판넬부재(1)(2)를 연속 설치할 수 있도록 함을 특징으로 한다.

도면도



도면서

[고안의 명칭]

건축용 판넬의 연결구조

[도면의 간단한 설명]

제1도는 종래의 건축용 판넬의 연결구조도.

제2도는 본 고안의 구성을 보인 일부 단면도.

제3도는 본 고안의 다른 실시예를 보인 단면도.

* 도면의 주요부분에 대한 부호는 설명

1, 2 : 판넬부재

11 : 체결단부

- 12 : 내측결합부
12a : 결합단부
12b : 결합단부
21a : 결합홈
3 : 체결볼트
5 : 설치부재

- 12a : 결합단부
21 : 외측결합부
21b : 결합단부
4 : 체결부재

[고안의 상세한 설명]

본 고안은 건축용 판벽의 연결구조에 관한 것으로 좀더 구체적으로는 지반재를 사용함에 있어 판별부재의 연결부를 통한 누수 및 파손을 방지하면서 시공이 용이하도록 하는 구조를 제공하는 것을 목적으로 한다.

제1도는 종래의 연결구조도로서, 이를 참조하여 설명하면, 판별부재(100)(100')는 단열재(7)의 외면에 광면들의 시트(S)를 각각 갖는 구조로 되어 있고, 이러한 판별부재(100)(100')를 판벽의 판돌부에 형성한 상측의 결합돌출부(110)를 관통하도록 형성한 단속의 결합단부(12)와 체결볼트(21)가 결합되어 체결볼트(300)로 구조물(500)에 고정되며, 상기의 체결볼트(300)상측에 종(4)이 위치한다.

그러나 상기에서와 같은 종래의 구조는 시공이 번거롭고, 단열재(7)의 단열성능을 저하시키는 문제를 발생하여 바탕과 함께 빛줄이 침투되어 누수가 발생되어 건축물의 내구성을 저하시키게 되어, 또한 판별부재를 구조물에 결합시키는 체결볼트들이 누수 및 파손을 초래하고 있었다.

또한 문제점은 대양으로 인한 판별부재의 팽창으로 체결볼트(300)를 이용하여 체결볼트가 파고되어 재기능을 수행하지 못하는 등의 문제점이 있었다.

또 다른 문제점은 판별부재를 고정시키는 체결볼트가 외부에 노출되어 파손, 부식, 미관 문제점이 있다.

본 고안의 목적은 상기에서와 같은 종래의 문제점을 해결하기 위하여 종래의 구조와 다른 판별부재의 연결부를 통한 누수 및 파손을 방지하면서 시공이 용이하도록 하는 구조를 제공하는 것을 목적으로 한다.

상기한 목적을 구현하기 위하여 본 고안은 판별부재의 단부에 체결단부를 형성하고, 단열재의 내측에 체결돌출부를 형성하여, 체결단부와 체결돌출부에 체결볼트를 형성한 내측결합부, 상기의 체결단부(1)와 결합해서 결합돌출부에 체결되는 결합홈을 형성한 외측결합부로 구성하여 각 판별부재를 결합, 설치함을 특징으로 한다.

이하 첨부된 일 실시예의 도면에 의하여 본 고안을 상세히 설명한다.

제2도는 본 고안의 일실시예를 도시한 것으로, 판별부재(1)의 단부에 체결단부(11)와 체결돌출부(12)를 갖는 구조로 되어 있고, 판별부재(1)의 단부에 체결단부(11)와 체결돌출부(12)를 갖는 구조로 되어 있고, 판별부재(1)의 단부에 체결단부(11)와 체결돌출부(12)를 갖는 구조로 되어 있고, 판별부재(1)의 단부에 체결단부(11)와 체결돌출부(12)를 갖는 구조로 되어 있다.

상기의 결합돌출부(12a)의 내측 경사면에는 결합단부(12b)를 형성한다.

그리고 판별부재(1)의 단속에는 판별부재(1)의 단부에 형성한 체결단부(11)가 삽입되도록 한 외측결합부(21)는 상기의 체결단부(11)와 결합해서 결합돌출부(12a)에 체결되는 구조로 되어 있다. 또한, 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다. 또한, 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다.

상기에서 결합돌출부(12a)와 결합홈(12b)의 사이에 체결볼트(300)를 이용하여 체결볼트를 체결부재(5)를 내재한다.

이와같이 구성된 본 고안의 설치방법을 살펴보면, 먼저 판별부재(1)의 단부에 형성한 체결단부(11)를 구조물(4)에 체결돌출부(3)로 고정시킨 다음에 판별부재(1)의 단부에 형성한 체결단부(11)를 체결돌출부(3)에 체결시키고, 체결단부(11)와 체결돌출부(3)에 체결되는 구조로 되어 있다. 또한, 체결단부(11)와 체결돌출부(3)에 체결되는 구조로 되어 있다.

제3도는 본 고안의 다른 실시예로서, 각 판별부재(1)의 단부에 체결단부(11)와 체결돌출부(12a) 및 결합돌출부(12b)를 각각 형성하여, 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다.

이러한 본 고안은 결합부(12)(21)가 다단 또는 곡면으로 형성되어, 단열재(7)의 단열성능을 저하시키는 문제를 발생하여 바탕과 함께 빛줄이 침투되어 누수가 발생하여 건축물의 내구성을 저하시키게 되어, 또한 판별부재를 구조물에 결합시키는 체결볼트들이 누수 및 파손을 초래하고 있었다.

또한 체결볼트(300)를 결합부(12)(21)가 감싸고 있어 체결볼트(300)를 이용하여 체결볼트를 체결부재(5)를 내재한다.

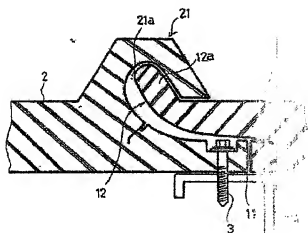
(57) 원구의 범위

청구항 1

판별부재(1)의 양측단부에 내, 외측결합부(12)(21)를 형성하여, 단열재(7)의 단부에 형성한 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다. 또한, 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다. 또한, 체결단부(11)와 체결돌출부(12a)에 체결되는 구조로 되어 있다.

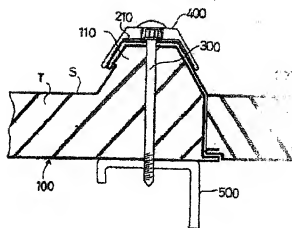
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도면3



도면

도면 1



도면 2

